

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: INVUE

Report Number: P677328

Luminaire Tested: **CCW-SA-1C-830-U-SLL-HSS**

Issue Date: 04/25/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P677328  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/25/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCW-SA-1C-830-U-SLL-HSS  
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @615mA w/  
SLL distribution lens and House Side Shield  
Light Source: (16) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

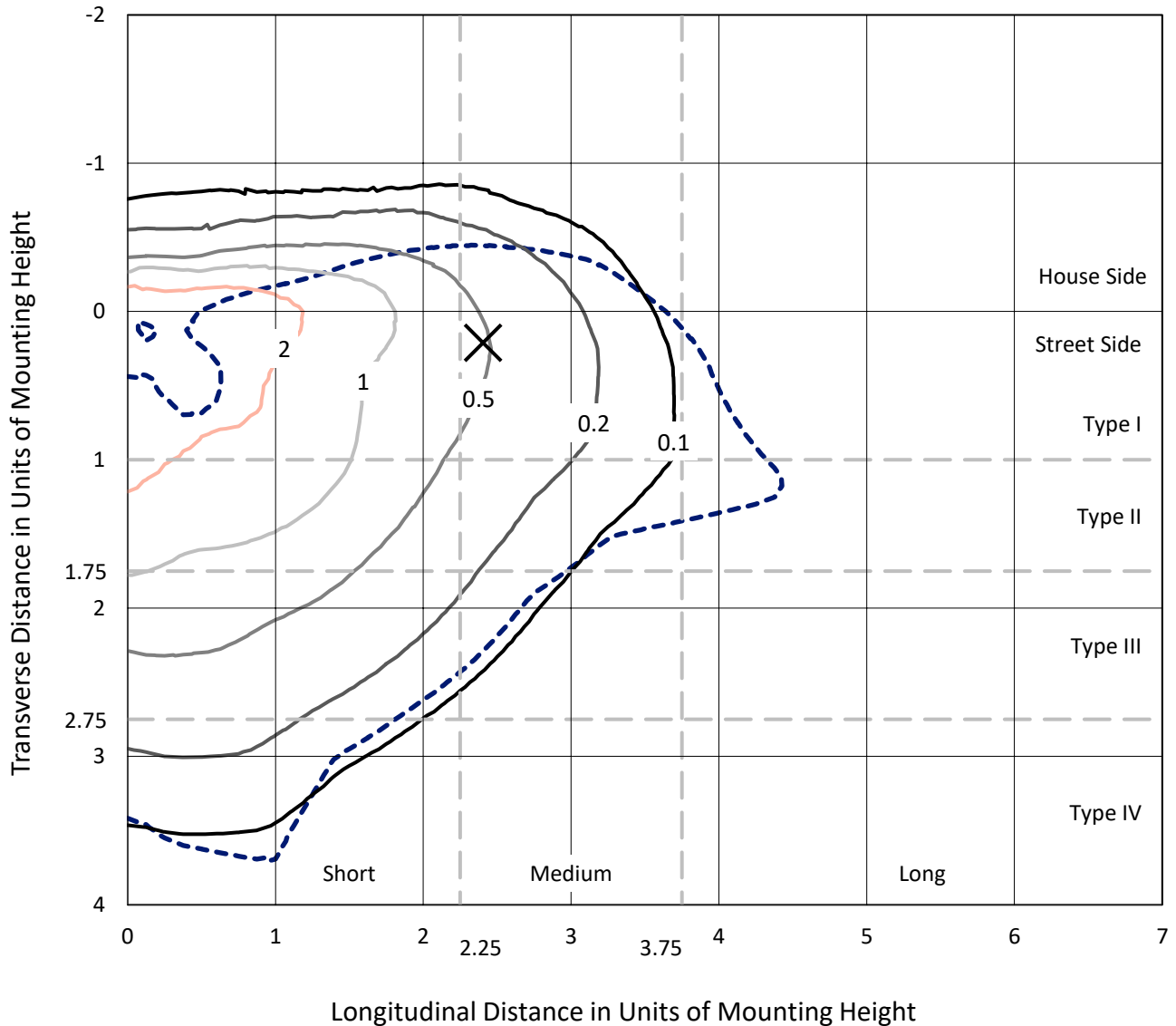
Lumens per Lamp: N/A  
Luminaire Lumens: 2606.6 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B1 - U0 - G1

Input Watts (W): 32  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

REPORT NUMBER: P677328  
 CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

### Iso-Footcandle Lines of Horizontal Illumination

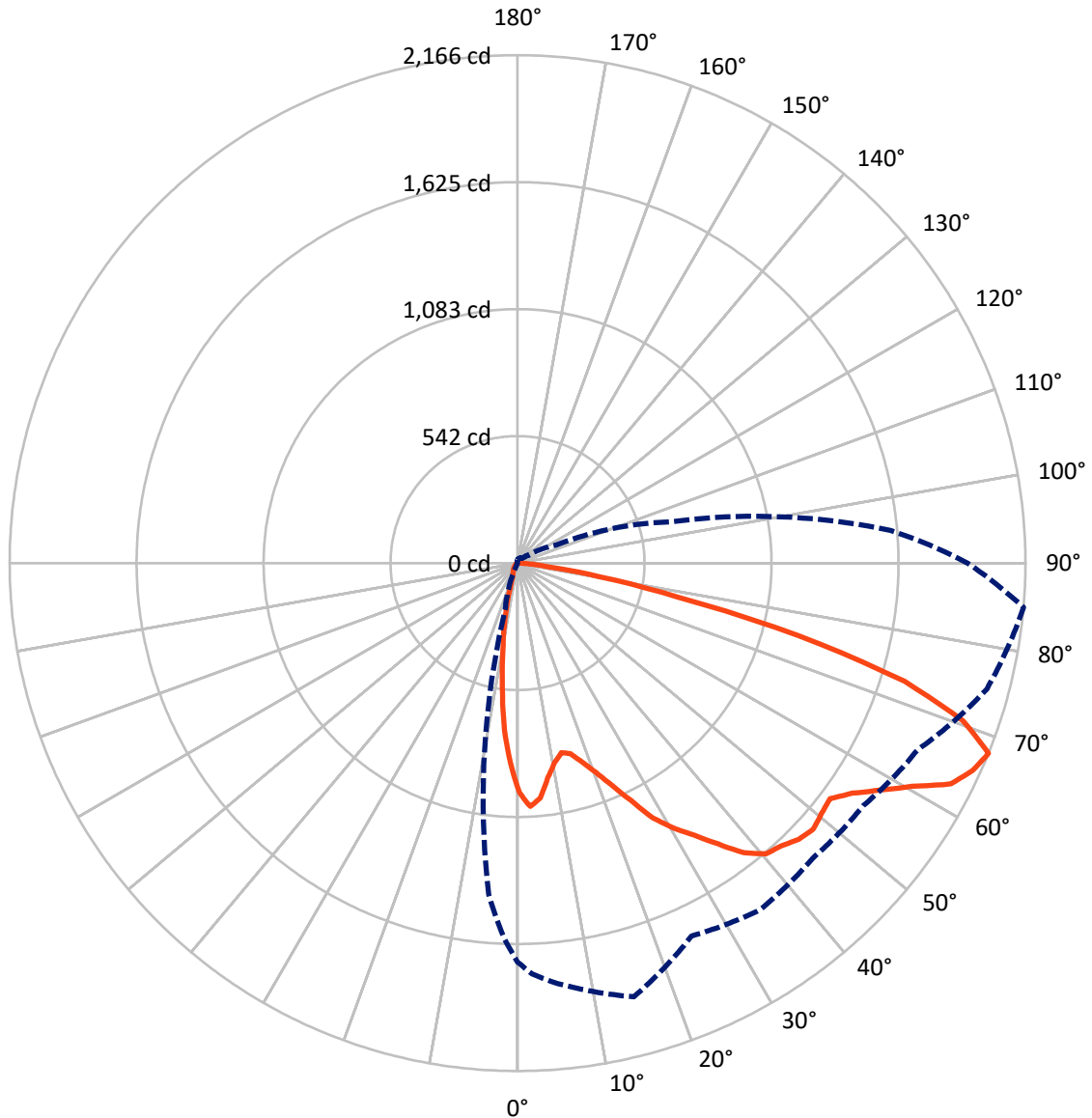
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 4.9 fc  
 Type III - Medium - N/A

REPORT NUMBER: P677328  
CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P677328  
 CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

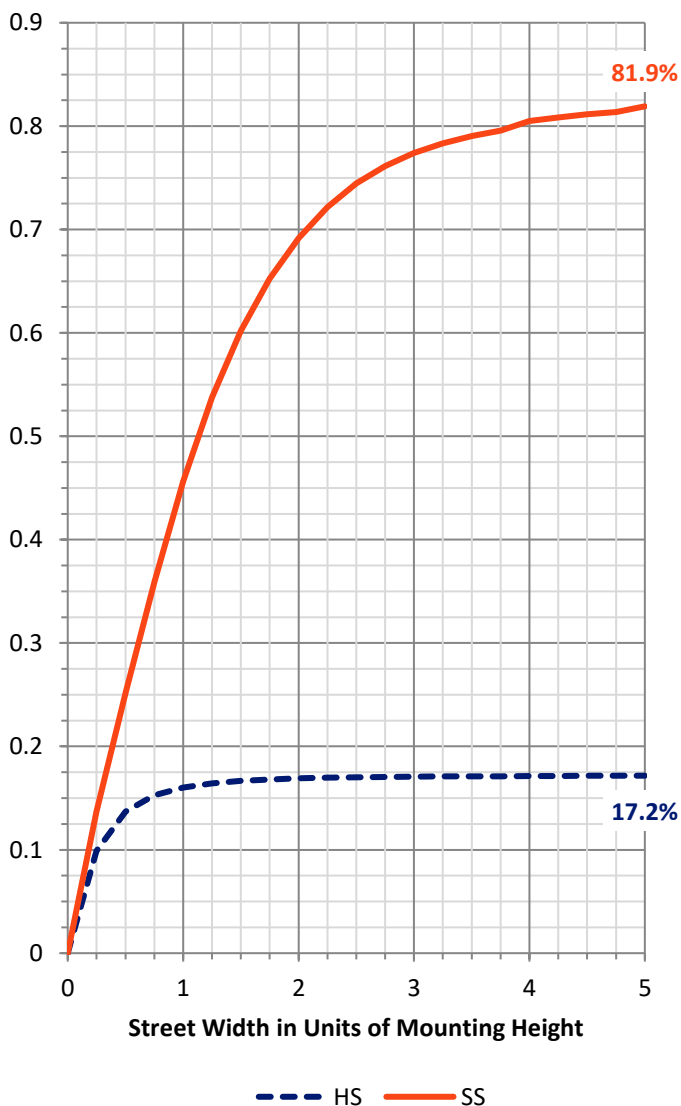
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	452.6	0.0	452.6
	% Fixture	17.4	0.0	17.4
<b>Street Side</b>	Lumens	2154.0	0.0	2154.0
	% Fixture	82.6	0.0	82.6
<b>Total</b>	Lumens	2606.6	0.0	2606.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.5	2.9
10°-20°	146.0	5.6
20°-30°	202.0	7.8
30°-40°	285.5	11.0
40°-50°	388.8	14.9
50°-60°	514.9	19.8
60°-70°	597.8	22.9
70°-80°	338.6	13.0
80°-90°	58.5	2.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2606.6	100.0
0°-180°	2606.6	100.0

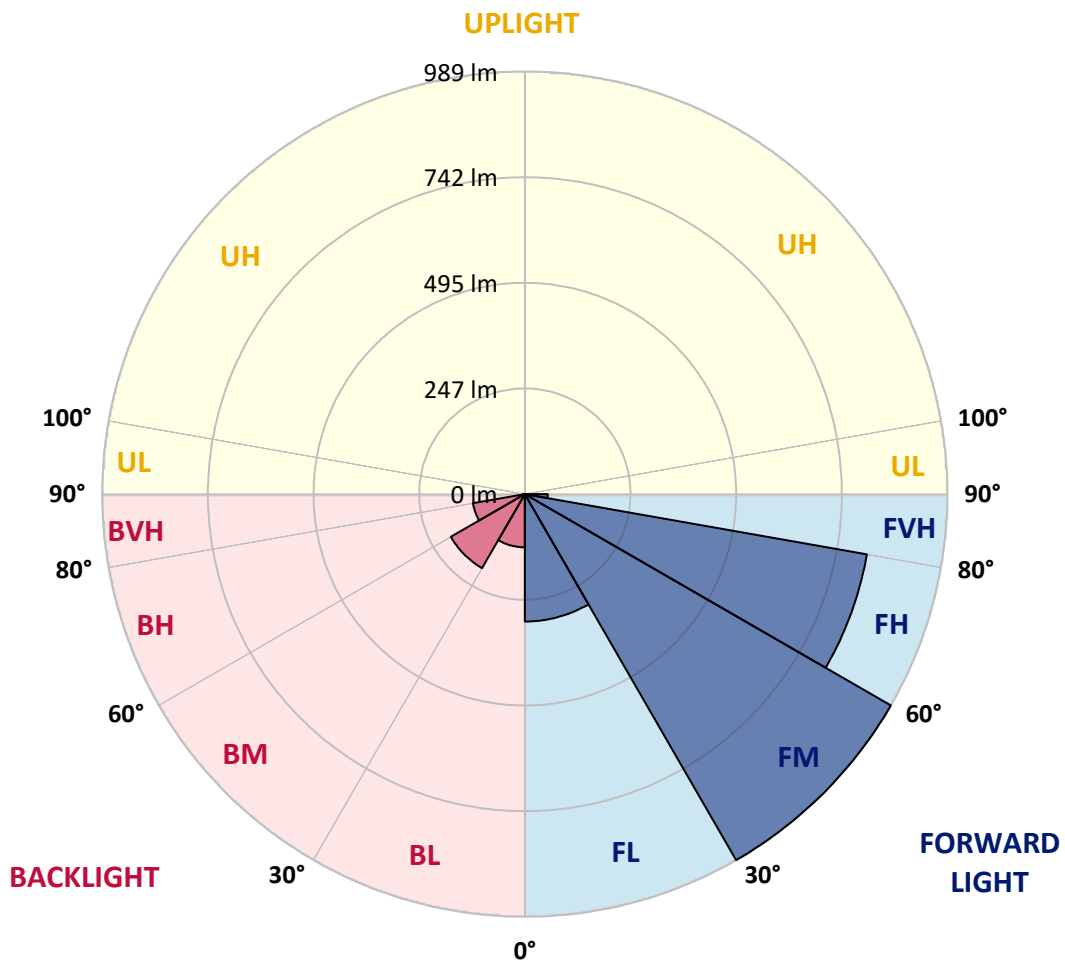


REPORT NUMBER: P677328  
 CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	298.1	11.4			
FM (30°-60°)	989.2	38.0			
FH (60°-80°)	813.1	31.2			G1/1800
FVH (80°-90°)	53.6	2.1			G1/100
BL (0°-30°)	124.4	4.8	B1/500		
BM (30°-60°)	200.0	7.7	B0/220		
BH (60°-80°)	123.3	4.7	B1/500		G1/500
BVH (80°-90°)	4.9	0.2			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type III Medium





REPORT NUMBER: P677328

CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	2°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1
2.5°	1018.3	1039.9	1040.6	1050.4	1060.1	1060.1	1083.1	1077.5	1057.3	1053.8	1039.2
5°	1026.0	1033.6	1039.2	1088.6	1130.4	1126.2	1138.8	1130.4	1091.4	1041.3	1007.2
7.5°	959.9	968.2	990.5	1074.7	1131.1	1149.9	1173.6	1121.4	1080.3	989.8	924.4
10°	872.2	888.2	929.2	1025.3	1094.9	1154.8	1154.8	1113.0	1033.6	945.2	865.2
12.5°	823.4	855.5	877.7	975.2	1065.7	1106.7	1105.3	1083.1	1031.6	920.2	829.7
15°	831.8	840.8	888.2	964.0	1023.9	1021.8	1046.9	1039.9	1003.7	942.5	842.9
17.5°	870.1	884.0	925.1	964.0	992.6	984.2	983.5	1016.9	1019.0	980.1	892.3
20°	932.7	973.8	993.3	1005.1	970.3	934.8	930.6	977.3	1013.5	1028.1	951.5
22.5°	1033.0	1060.1	1099.8	1039.2	948.7	904.2	895.8	947.3	1020.4	1085.2	1028.1
25°	1131.1	1152.0	1190.3	1112.3	973.1	897.9	883.3	927.8	1046.9	1164.5	1120.7
27.5°	1234.8	1252.9	1257.1	1165.9	986.3	885.4	868.0	927.8	1069.1	1206.3	1231.3
30°	1298.2	1319.7	1323.9	1213.2	1007.9	895.8	887.5	932.0	1084.5	1241.8	1310.7
32.5°	1369.1	1374.7	1371.2	1221.6	1031.6	926.5	891.7	959.9	1101.9	1284.2	1383.1
35°	1454.1	1463.8	1428.3	1259.9	1084.5	945.9	933.4	994.0	1131.8	1303.7	1470.8
37.5°	1518.8	1549.4	1469.4	1274.5	1094.9	987.0	989.1	1065.0	1152.7	1327.4	1567.5
40°	1640.6	1589.1	1539.0	1324.6	1134.6	1056.6	1045.5	1138.1	1223.0	1342.7	1630.9
42.5°	1707.4	1680.3	1566.1	1329.5	1195.8	1152.7	1155.5	1220.9	1259.9	1385.9	1648.3
45°	1724.1	1695.6	1603.0	1333.0	1256.4	1266.1	1314.2	1326.7	1314.2	1414.4	1681.0
47.5°	1766.6	1704.7	1598.8	1379.6	1354.5	1392.1	1453.4	1480.5	1387.9	1404.0	1696.3
50°	1758.2	1722.7	1589.8	1399.1	1474.3	1573.8	1614.9	1603.7	1470.1	1382.4	1679.6
52.5°	1723.4	1685.2	1617.6	1452.0	1586.3	1706.7	1763.8	1736.0	1543.2	1431.1	1668.5
55°	1774.3	1745.0	1653.8	1523.7	1670.5	1823.7	1864.0	1843.2	1633.0	1476.3	1731.8
57.5°	1829.2	1823.0	1752.0	1607.9	1770.1	1944.1	1944.1	1918.3	1710.9	1541.8	1825.8
60°	1908.6	1922.5	1824.4	1663.6	1804.2	1937.1	2038.1	2008.1	1789.6	1656.6	1932.3
62.5°	1882.8	1927.4	1917.6	1783.3	1843.2	1971.2	2026.2	2048.5	1887.0	1796.5	2074.3
65°	1800.0	1847.3	1916.9	1862.0	1813.9	1888.4	1916.3	1983.8	1935.7	1928.1	2132.7
67.5°	1701.2	1752.7	1795.8	1914.9	1754.8	1804.2	1779.8	1801.4	1882.8	2072.2	2166.1
70°	1485.4	1534.8	1603.0	1797.2	1598.2	1553.6	1547.3	1536.9	1663.6	2020.7	2014.4
72.5°	1221.6	1244.6	1357.3	1461.0	1182.6	1174.3	1184.0	1172.2	1319.0	1829.2	1725.5
75°	914.6	937.6	1001.6	1122.0	805.3	757.3	813.0	868.0	1007.2	1420.0	1239.7
77.5°	687.7	716.9	757.3	839.4	591.0	515.8	523.4	575.6	728.1	1137.4	694.7
80°	446.2	442.7	520.7	577.7	444.8	458.7	439.2	477.5	527.6	608.4	355.0
82.5°	257.5	261.0	293.7	331.3	309.7	354.3	255.5	426.7	376.6	247.8	132.3
85°	144.8	151.0	181.0	229.7	194.2	130.2	106.5	211.6	236.7	101.6	64.0
87.5°	14.6	12.5	24.4	87.0	52.9	21.6	32.0	50.8	57.1	38.3	18.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P677328  
 CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1
2.5°	1018.3	1018.3	1000.9	971.7	959.9	939.0	910.4	919.5	909.8	874.3	865.2
5°	976.6	943.2	907.0	862.4	836.7	783.8	767.1	737.1	742.0	712.1	713.5
7.5°	889.6	863.1	801.9	743.4	692.6	646.6	581.9	557.5	533.9	522.0	536.0
10°	838.8	789.3	705.8	629.2	561.7	520.7	477.5	444.1	413.5	390.5	385.6
12.5°	801.9	758.0	657.1	563.8	510.9	477.5	437.8	391.9	362.0	322.3	310.4
15°	790.7	737.1	630.6	538.1	486.5	431.6	386.3	341.1	302.1	260.3	245.7
17.5°	829.0	767.1	629.9	517.2	444.8	385.6	323.0	272.2	232.5	194.2	185.2
20°	893.7	799.1	650.1	504.6	405.1	325.8	254.8	203.9	159.4	134.3	128.1
22.5°	967.5	853.4	652.2	471.2	365.4	265.9	185.8	134.3	109.3	97.4	94.0
25°	1058.0	940.4	677.3	444.1	318.8	201.9	132.3	103.0	88.4	81.4	80.0
27.5°	1132.5	1000.9	704.4	415.5	272.9	149.7	103.7	84.2	76.6	69.6	68.9
30°	1209.8	1070.5	712.1	398.1	233.2	123.2	89.1	74.5	66.1	62.6	61.9
32.5°	1277.3	1146.4	736.4	369.6	195.6	108.6	80.7	66.8	61.3	55.7	55.0
35°	1364.3	1190.3	748.3	354.3	181.7	98.1	73.8	61.3	52.9	49.4	48.0
37.5°	1457.5	1232.7	755.9	342.5	169.8	91.9	69.6	57.8	50.1	45.2	43.9
40°	1544.6	1292.6	744.8	327.8	160.8	84.2	66.8	53.6	46.6	41.8	39.7
42.5°	1611.4	1351.1	741.3	313.9	151.0	81.4	63.3	51.5	43.9	38.3	37.6
45°	1649.0	1390.7	716.9	302.8	143.4	82.8	61.9	48.7	41.8	36.9	34.1
47.5°	1639.9	1421.4	723.2	299.3	132.9	77.3	61.3	46.6	38.3	34.1	32.0
50°	1690.0	1483.3	712.8	288.2	125.3	69.6	66.8	46.6	37.6	32.7	30.6
52.5°	1698.4	1539.7	735.0	268.0	113.5	64.0	66.1	45.9	36.2	31.3	28.5
55°	1768.0	1605.1	778.2	256.8	103.7	55.7	60.6	44.5	32.7	28.5	27.1
57.5°	1862.7	1740.8	806.0	246.4	90.5	48.7	50.8	43.9	29.9	26.5	24.4
60°	1953.8	1795.1	808.1	227.6	78.0	43.9	39.7	43.9	27.8	23.7	21.6
62.5°	2022.1	1795.1	794.2	211.6	68.2	39.0	34.8	41.8	25.1	20.9	19.5
65°	1985.2	1747.1	758.0	198.4	61.9	34.1	29.9	32.0	22.3	18.1	16.7
67.5°	1919.0	1597.5	678.0	182.4	61.3	29.9	25.8	23.7	19.5	16.0	14.6
70°	1813.2	1395.6	564.5	164.3	59.9	27.1	23.0	20.2	17.4	13.9	12.5
72.5°	1461.0	1152.7	463.6	153.8	58.5	23.7	19.5	17.4	14.6	11.8	10.4
75°	1012.1	736.4	357.1	131.6	57.1	21.6	18.1	15.3	12.5	9.7	9.0
77.5°	607.0	492.1	230.4	98.8	37.6	17.4	15.3	11.8	10.4	8.4	7.7
80°	284.0	232.5	93.3	38.3	18.1	12.5	10.4	9.0	8.4	7.0	6.3
82.5°	111.4	98.1	45.2	22.3	14.6	9.7	8.4	7.7	7.0	5.6	4.9
85°	59.9	52.9	21.6	15.3	10.4	7.0	7.0	6.3	5.6	4.9	4.2
87.5°	13.2	9.7	9.0	9.0	7.7	5.6	5.6	4.9	4.2	3.5	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P677328  
 CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	185°	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°
0°	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1
2.5°	860.3	870.8	854.1	864.5	849.9	861.0	862.4	852.0	854.8	868.7	874.9
5°	733.0	726.0	710.7	705.8	706.5	697.5	700.9	705.8	713.5	717.6	730.2
7.5°	528.3	544.3	543.6	555.5	556.2	554.8	545.0	524.1	531.1	525.5	532.5
10°	378.0	384.9	398.1	405.8	419.7	412.1	389.8	381.4	377.3	376.6	383.5
12.5°	302.1	285.4	284.0	286.8	293.7	284.7	273.6	263.8	268.7	278.4	286.1
15°	233.9	220.0	201.9	199.1	200.5	196.3	184.5	171.9	175.4	185.2	190.7
17.5°	179.6	163.6	151.0	142.7	139.9	125.3	107.9	97.4	94.7	94.0	98.8
20°	121.1	118.3	116.2	105.8	105.8	84.9	70.3	62.6	62.6	64.0	64.7
22.5°	90.5	87.0	87.7	85.6	80.0	63.3	55.7	53.6	53.6	55.0	55.0
25°	78.7	73.8	72.4	71.7	66.1	54.3	48.7	46.6	46.6	48.0	48.0
27.5°	66.8	65.4	63.3	60.6	55.7	46.6	43.2	41.1	41.8	42.5	41.8
30°	61.3	57.8	55.0	55.0	49.4	41.8	39.0	37.6	36.2	37.6	38.3
32.5°	54.3	52.2	50.8	48.7	42.5	36.9	34.1	32.7	32.0	32.0	32.7
35°	46.6	46.6	45.2	42.5	36.9	33.4	29.9	28.5	27.8	28.5	28.5
37.5°	41.8	39.7	40.4	37.6	32.7	29.2	25.8	24.4	24.4	23.7	24.4
40°	39.0	35.5	33.4	32.0	29.2	25.1	22.3	20.9	20.2	20.2	20.2
42.5°	34.8	32.0	27.8	27.1	26.5	21.6	18.1	17.4	16.7	16.0	16.0
45°	32.7	28.5	25.1	21.6	21.6	18.1	15.3	13.9	13.2	12.5	13.2
47.5°	29.9	25.8	21.6	18.1	17.4	14.6	11.8	10.4	9.7	9.7	9.7
50°	28.5	23.0	18.8	15.3	13.2	11.8	9.0	7.7	7.0	7.0	7.0
52.5°	26.5	21.6	16.7	13.2	10.4	9.0	7.0	5.6	4.9	4.9	4.9
55°	23.7	19.5	14.6	11.1	9.0	7.0	4.9	3.5	2.8	2.8	2.8
57.5°	22.3	17.4	12.5	9.7	7.0	4.9	2.8	2.1	2.1	1.4	2.1
60°	20.2	15.3	10.4	7.7	5.6	3.5	2.1	0.7	0.7	0.7	0.7
62.5°	17.4	13.2	9.0	6.3	4.2	2.1	0.7	0.0	0.0	0.0	0.0
65°	14.6	10.4	7.0	4.9	2.8	0.7	0.0	0.0	0.0	0.0	0.0
67.5°	12.5	9.0	5.6	3.5	2.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	11.1	7.7	4.2	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	9.0	6.3	3.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	7.7	4.9	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	6.3	3.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.9	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P677328  
 CATALOG NUMBER: CCW-SA-1C-830-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

	285°	295°	305°	315°	325°	335°	345°	355°	358°	360°
0°	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1	980.1
2.5°	884.0	879.8	900.7	934.8	952.2	986.3	994.7	1016.2	1010.7	1018.3
5°	731.6	739.9	770.5	820.7	838.8	888.2	934.8	981.4	1011.4	1026.0
7.5°	542.9	570.8	608.4	654.3	700.9	765.7	845.0	899.3	928.5	959.9
10°	404.4	434.3	477.5	522.7	598.6	671.0	750.4	817.9	842.9	872.2
12.5°	318.1	364.7	414.9	463.6	508.8	577.7	675.9	774.0	801.2	823.4
15°	221.3	278.4	350.1	413.5	476.8	536.7	638.3	757.3	794.2	831.8
17.5°	122.5	167.8	249.9	339.0	432.3	524.1	650.8	787.9	843.6	870.1
20°	71.0	89.1	147.6	253.4	376.6	497.0	657.1	845.7	919.5	932.7
22.5°	58.5	64.7	83.5	158.7	308.4	479.6	689.1	926.5	1001.6	1033.0
25°	50.1	55.0	64.7	95.4	233.2	442.7	709.3	1027.4	1097.0	1131.1
27.5°	44.5	49.4	57.1	70.3	158.7	391.9	742.7	1118.6	1188.2	1234.8
30°	39.0	43.2	50.8	59.9	110.0	334.8	771.2	1185.4	1283.5	1298.2
32.5°	34.8	38.3	43.9	51.5	81.4	254.1	794.2	1254.3	1337.1	1369.1
35°	29.9	34.1	37.6	43.9	61.9	191.4	780.3	1307.9	1415.8	1454.1
37.5°	26.5	29.2	32.7	36.9	52.2	149.7	751.7	1371.9	1483.3	1518.8
40°	22.3	24.4	28.5	32.7	47.3	115.5	719.0	1449.2	1578.0	1640.6
42.5°	18.8	20.9	23.7	30.6	39.0	85.6	652.9	1509.1	1654.5	1707.4
45°	14.6	17.4	21.6	30.6	31.3	63.3	584.7	1553.6	1697.7	1724.1
47.5°	11.1	13.9	20.9	26.5	25.1	43.9	503.9	1604.4	1742.2	1766.6
50°	8.4	11.1	23.7	23.0	20.9	33.4	453.1	1639.9	1745.0	1758.2
52.5°	5.6	8.4	19.5	17.4	17.4	29.2	439.2	1638.5	1752.0	1723.4
55°	4.2	6.3	11.1	12.5	15.3	25.8	426.7	1690.7	1754.1	1774.3
57.5°	2.8	4.9	7.7	9.7	13.2	22.3	400.9	1753.4	1818.8	1829.2
60°	1.4	3.5	5.6	7.7	11.1	19.5	364.7	1799.3	1897.5	1908.6
62.5°	0.7	2.1	4.2	6.3	9.0	15.3	327.1	1726.2	1863.4	1882.8
65°	0.0	1.4	2.8	4.2	5.6	11.1	265.9	1558.5	1728.3	1800.0
67.5°	0.0	0.0	1.4	2.8	3.5	8.4	200.5	1417.9	1603.7	1701.2
70°	0.0	0.0	0.7	0.7	2.1	6.3	128.1	1174.3	1431.8	1485.4
72.5°	0.0	0.0	0.0	0.0	0.7	4.2	74.5	872.2	1122.0	1221.6
75°	0.0	0.0	0.0	0.0	0.0	3.5	37.6	561.0	781.0	914.6
77.5°	0.0	0.0	0.0	0.0	0.0	2.8	20.2	362.0	575.6	687.7
80°	0.0	0.0	0.0	0.0	0.0	0.7	11.8	210.2	368.2	446.2
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	4.9	103.0	220.0	257.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	55.0	110.0	144.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	7.7	14.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)